

**Amendments to the Drawings:**

The attached sheets of drawings include 13 replacement sheets of drawings for FIGs. 1 - 13B. These sheets, which includes FIGS. 1 to 13B, replaces the original sheets including FIGS. 1 to 13B.

REMARKS

The above-identified patent application has been amended and Applicants respectfully request the Examiner to reconsider and again examine the claims as amended.

Claims 1 to 32 are pending in the application and claims 33- 35 are new. Claims 1 to 32 were rejected. Claims 1, 6, 7, 14,15, 18, 19, 24, and 31 are amended herein.

Applicants note the objection to the drawings and applicants have submitted replacement drawings as part of this response.

The Examiner objected to the disclosure due to various reasons. Applicants have amended the specification with the Examiners comments in mind.

The Examiner rejected Claims 6, 14, 24 and 31 under 35 U.S.C. §112, second paragraph due to insufficient antecedent basis for the limitation in the claim. Applicants have amended Claims 6, 14, 24 and 31 to correct the insufficient antecedent basis and Applicants submit that Claims 6, 14, 24 and 31 are now proper under 35 U.S.C. §112, second paragraph.

The Examiner rejected the claims under 35 U.S.C. §103(a) as being unpatentable over Siewert et al. (U.S. Patent number 5,892,299) in view of Hart (U.S. Patent number 6,236,949) and Cole et al. (U.S. Patent number 2,135,250).

It is respectfully submitted that Claim 1, as amended, is patentable over Siewert et al. in view of Hart and Cole et al., since Siewert et al. in view of Hart and Cole et al. neither describe nor suggest "... a power source regulated bus adapted to connect in a mesh topology to a plurality of subsystems; ... a controller having a plurality of outputs and capable to provide a time-shared

mode of operation to provide power sequentially to one or more of the plurality of subsystems...."

As Claims 2 through 6 depend from allowable Claim 1 and cite additional structure, they too are allowable for analogous reasons.

It is respectfully submitted that Claim 7, as amended, is patentable over Siewert et al. in view of Hart and Cole et al., since Siewert et al. in view of Hart and Cole et al. neither describe nor suggest "... a subsystem regulated bus adapted to connect in a mesh topology to a plurality of subsystems; ... a controller having a plurality of outputs and capable to provide a time-shared mode of operation to provide power sequentially to one or more of the plurality of subsystems, ...."

As Claims 8 through 14 depend from allowable Claim 7 and cite additional structure, they too are allowable for analogous reasons.

It is respectfully submitted that Claim 15, as amended, is patentable over Siewert et al. in view of Hart and Cole et al., since Siewert et al. in view of Hart and Cole et al. neither describe nor suggest " a common power source component; at least two or more power system subsystem components; and an interconnect connecting said common power source component and said at least two or more power system subsystem components in a mesh topology configuration."

As Claims 16 and 17 and 20 through 31 depend from allowable Claim 15 and cite additional structure, they too are allowable for analogous reasons.

Dependent Claim 18 adds the limitation "... a power source regulated bus adapted to connect in a mesh topology to a plurality of subsystem components; ... a controller having a plurality of outputs and capable to provide a time-shared mode of operation to provide power

sequentially to one or more of the plurality of subsystem components, ..." to claim a further patentably distinct feature of the invention.

Dependent Claim 19 adds a further patentably distinct feature of the invention reciting "... a subsystem regulated bus adapted to connect in a mesh topology to a plurality of subsystem components; ... a controller having a plurality of outputs and capable to provide a time-shared mode of operation to provide power sequentially to one or more of the plurality of subsystem components ...."

Dependent Claim 32 adds the limitation "wherein said power system supplies power in at least one mode, said at least one mode selected from the group consisting of a single power mode wherein a single power source supplies power for said power system, a simultaneous power mode wherein a first power source provides power to a first power source subsystem component and wherein a second power source provides power to a second power source subsystem component, and a sequential mode wherein a first power source provides power for said power system for a first time interval and a second power source provides power for said power system for a second time interval" to claim a further patentably distinct feature of the invention.

Independent Claim 33 is patentable over the cited references, since the cited references fail to teach "...a first interconnect with k sets of power connections connecting all k said power system subsystem components and said common power source subsystem component, each of said sets of connections comprising  $R_0$  connections to subsystem regulated buses, where  $R_0$  is an integer equal to or greater than one, each of said sets of connections further comprising U connections to unregulated buses of said power system subsystem components, where U is an integer equal to or greater than one; a second interconnect with  $k*(k-1)/2$  sets of power connections connecting every one of k said power system subsystem components to all other said power system subsystem components, each of said sets of connections comprising at least one connection to the subsystem regulated bus, ...."

Independent Claim 34 is patentable over the cited references, since the cited references fail to teach a “time sharing power from a regulated power source to a plurality of loads where the time each one of the plurality of loads is connected to the regulated power source is different; and time sharing power from an energy source other than the a regulated power source to a plurality of loads, where the energy source provides any power to the plurality of loads beyond the capability of the regulated power source.”

Dependent Claim 35 adds a further patentably distinct feature of the invention reciting “recharging the energy source from the regulated power source when none of the plurality of loads demand power.”

Applicants have submitted herewith a Petition for an Extension of Time for two months with authorization to charge Daly, Crowley, Mofford & Durkee, LLP Deposit Account No. 50-0845 to cover the costs of the petition.

Authorization to charge Daly, Crowley, Mofford & Durkee, LLP Deposit Account No. 50-0845 to cover the costs of the additional claims is hereby given.

The Examiner is respectfully invited to telephone the undersigning attorney if there are any questions regarding this Response or this application.


The Assistant Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-0845, including but not limited to, any charges for extensions of time under 37 C.F.R. §1.136.

Accordingly, re-examination and reconsideration are requested in view of the above amendment and remarks.

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Respectfully submitted,

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**Appendix:**

Figures 1-13B, are shown as Replacement Sheets.